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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,404

10/22/2003

Jeffrey D. Earls

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8505

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09/07/2006

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EXAMINER

NGUYEN, THUAN T

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,404	Applicant(s) EARLS ET AL.	
	Examiner THUAN T. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 6-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5 and 14-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al (U.S. Patent 6,834,073 B1) in view of Von der Embse (US Patent 4,689,806).

Regarding claim 1, Miller discloses a tracking generator for an RF measurement instrument having a controller and a receiver (Fig. 3A (1)) comprising means for generating a baseband signal under control of the controller (refer to Fig. 1 and col. 3/lines 37-51 for a conventional receiver as a baseband signal is generated); means for modulating the baseband signal with a modulation oscillator frequency to produce a modulation signal (modulated oscillation signal at 114 is mixing with incoming RF signals); and means for mixing the modulation signal with a local oscillator frequency from the receiver to produce a test signal having an output frequency that matches a measurement frequency for the receiver (col. 9/lines 34-63 for the synchronization process at the waveform correlator 5 with a plurality of pulse sequence for the determination the receiver is synchronized with the incoming signal).

Miller does not clearly show “the test signal having an output frequency that matches a measurement frequency for the receiver” after the process under control of a controller, the baseband signal is modulated and the modulation signal is mixing with a LO signal; however, in a same field of environment, Von der Embse teaches a receiver with quickly acquire and track a signal to demodulate data carried by the signal that provides RF measurements including modulating the baseband signals and provides the test signal using sequential probability ratio test (SPRT) (refer to col. 1/line 40 to col. 2/line 12; and Figs. 12a-b & col. 29/line 9-col. 30/line 15 for receiver mode control with the radio signal test). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miller’s system with Von der Embse’s teaching technique in using a SPRT test for quickly acquire and track a signal to demodulate data carried by the signal.

As for claim 2, this feature is met as Miller teaches to provide a frequency offset for the output frequency (col. 12/lines 11-27).

As for claim 3, this feature is met as Miller teaches the frequency offset as noted above is for a USB receiver including baseband processing (refer to col. 22/see claim 3 and 9).

As for claim 4, this feature is inherently suggested by Miller as Miller teaches the A/D converter is having sampling rates using the Nyquist rate.

As for claim 5, Miller teaches this feature as for the conventional receiver, an AGC includes LO and LO is being adjusted (col. 2/line 58-col. 3/line 16) prior to input into the mixing means (Fig. 1/item 112 for the mixer).

As for claims 14-15, these claims are rejected for the reasons given in the scope of claims 1-2 as disclosed above.

Allowable Subject Matter

4. Claims 6-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

For claim 6, Miller does not disclose a tracking generator as cited in claim 1 & 2 AND further including "wherein the offsetting means comprises means for controlling a modulation oscillator frequency for the modulating means to produce an offset in the modulation signal."

Other claims are allowable based on the dependence on claim 6.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Von der Embse and Vanhoof et al (PTO-892 attached) disclose systems related to receiver with means for acquire and tracking signals.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to the New Central Fax number:

(571) 273-8300, (for Technology Center 2600 only)

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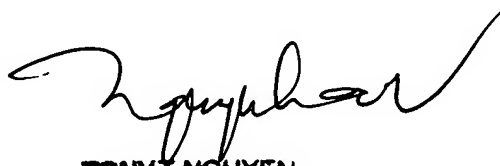
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Art Unit: 2618

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Division or Art Unit 2618.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TONY T. NGUYEN
PATENT EXAMINER, PTA

Tony T. Nguyen
Art Unit 2618
August 30, 2006